

EPA Region III

Office of Public Affairs

EARLY BIRD HEADLINES

Friday, October 5, 2012

*** MORNING HOT LIST ***

Court hears legal challenge to Chesapeake Bay 'pollution diet'

BALTIMORE SUN HARRISBURG, PA.— In a challenge to the Obama administration's efforts to jump-start the lagging restoration of the Chesapeake Bay, lawyers for farmers and homebuilders argued in federal court here Thursday that the Environmental Protection Agency overstepped its legal authority and relied on a flawed computer model in setting a pollution "diet" for the ailing estuary. Lawyers for the American Farm Bureau Federation, the National Association of Home Builders, poultry and pork producers, and other farming groups argued that states in the Chesapeake watershed, not the federal government, should be in charge of deciding how and where to reduce pollution fouling the bay. They also complained that the far-reaching "diet" was rushed into place despite gaps and errors and without giving the public enough time to review and comment on it. "It will affect urban growth; it affects how agriculture land will be used," said Richard E. Schwartz, one of the industry groups' lawyers. The pollution diet is generating an unprecedented amount of regulation of what, he said, are "intensely local and expensive decisions" best left to communities to work out themselves. But lawyers for the EPA, environmental groups and local agencies operating sewage treatment plants defended the agency's role in directing an acceleration of bay cleanup efforts. Without strong federal oversight and threat of sanctions, they pointed out, states had repeatedly missed their pollution-reduction goals since the restoration campaign began nearly 30 years ago. Kent F. Hanson, a Justice Department lawyer for the EPA, said federal regulators worked closely with state officials in a years-long, open process to develop the pollution-reduction plan. While some states did resist and complain about the EPA's handling of it, he noted that none joined in the farmers' and builders' lawsuit. Congress directed the EPA more than a decade ago to take a hand in the bay cleanup effort, said Jon Mueller, a lawyer for the Chesapeake Bay Foundation also representing several other environmental groups. Specific pollution reductions ordered for local waters and communities were set by the states, he said.

PennFuture accuses DEP of permit dishonesty

PITTSBURGH POST-GAZETTE The state Department of Environmental Protection pulled a "switcheroo" by approving a permit that allows the spreading of chemical salts from Marcellus Shale hydraulic fracturing wastewater on roadways and fields statewide, according to an environmental organization's appeal of that permit. The appeal to the state Environmental Hearing Board by Citizens for Pennsylvania's Future alleges that the DEP violated fundamental due process rules requiring public notice and comment in granting the permit last month to Integrated Water Technologies Inc., and asks that it be revoked. PennFuture claimed in its 11-page filing Monday that the required public notice for the permit described it narrowly as allowing the Little Falls, N.J.-firm to treat and process fracking wastewater from Marcellus Shale wells at a facility in North Fayette. But the DEP, after meeting and corresponding with Integrated Water, issued a different "general permit" that says nothing about wastewater treatment. Instead, the issued permit changes the definition of two chemical compounds

produced by the company's treatment process from waste to "beneficial use" and authorizes the spreading and use of the chemical salts for road and sidewalk de-icer, roadway dust suppression and soil stabilization. No public comment or input on those uses was sought by the state agency. The drilling industry uses millions of gallons of water mixed with chemicals and sand to "frack," or crack, the Marcellus shale and release the natural gas it contains. Some of that water flows back to the surface with the gas and is either reused or treated to remove a variety of heavy metals and salts it has washed out of the shale. The treatment byproducts -- crystallized sodium chloride and liquid calcium chloride -- could have "potentially widespread impacts on public health and the environment," according to the appeal, because the chemical salts are allowed by the permit to contain limited amounts of arsenic, lead, mercury, ammonia, volatile organic compounds and diesel hydrocarbons. Because of what is described as "DEP's misleading public notice," PennFuture contends that the permit application generated no public comment. "If you ask someone in Allegheny County or Bucks County or anywhere if someone can spread chemical salts created by treatment of Marcellus Shale fracking water, most would say 'No.' " said Kurt Weist, a senior attorney for PennFuture. "It was a misleading public notice and subsequently a one-sided conversation. There was no public input and the process is set up to allow public comment on the formulation of a permit." In addition to the procedural issue, the appeal said the reworking of the permit from wastewater processing to authorizing use of the chemical salts in publicly traveled places, like roads, sidewalks and fields, "fundamentally changed the nature and scope of the requested permit and its potential to affect public health and the environment."

State Parks Director John Norbeck stepping down; advocates fear drillers at the gate

HARRISBURG PATRIOT NEWS The Patriot-News has confirmed that the head of Pennsylvania's state parks, John Norbeck, will step down at the end of this week. Under Norbeck's leadership, the state parks increased visitation and won a gold medal national award for being the best-managed park system in the United States. Before coming to Pennsylvania in 2006, Norbeck had spent nearly 30 years in the Maryland state parks system.

Environmentalists and advocates for the state parks fear Norbeck's abrupt departure could be a sign that the Corbett administration is preparing to open the park gates to drilling rigs to tap natural gas under the Commonwealth's popular park system; Norbeck is known to be an opponent of drilling in the state parks. _Chris Novak, spokeswoman for the Department of Conservation and Natural Resources, confirmed Thursday morning that Norbeck had submitted his resignation on Monday, effective Friday, and sent an email to staff on Wednesday expressing appreciation for their work. Norbeck's letter to employees said, "During my entire career my guiding principles have always been to take care of staff and to provide top quality public service... I feel very comforted in knowing that we did just that during some pretty dark times." Novak declined to comment on the reasons for the resignation - and whether or not it was voluntary - citing personnel issues. Sources with knowledge of the situation said Norbeck was forced out last week by DCNR Deputy Secretary Ellen Ferretti. When Ferretti, a former regional president of the Pennsylvania Environmental Council, was appointed last year, the administration said her duties would include working "to develop policy on a variety of issues, including Marcellus Shale oil and gas development and drilling."

A Model Plan: How Can We Gauge the Bay's Cleanup?

CHESAPEAKE QUARTERLY Billions of dollars and the fate of the Chesapeake Bay hinge on a few computer simulations. Who are the scientists behind these "models," and how are they being used to drive the biggest effort to clean up a body of water in U.S. history? PICTURE THIS: A FORTUNE-TELLER, DRESSED IN JEWELS and a bandana, entertains a client. Between them sits a crystal ball. And in the corner, a multimillion-dollar supercomputer. "How do you want it?" the soothsayer asks. "The crystal mumbo-jumbo or statistical probability?" That's the gist of an old cartoon by artist Sidney Harris. The joke may be tongue-in-cheek, but it gets to an ongoing debate in modern environmental science: when it comes to representing the ins-and-outs of natural ecosystems — say a river or an estuary — and predicting what they'll do, are computer models any better than a shot in the dark? Nature is, after all, almost dauntingly complex and, as any scientist will tell you, full of surprises. So the question arises, for making decisions about managing the environment, whom do you trust: the fortune-teller or the modelers?

That same question has driven much of Lewis Linker's career. This modest scientist works out of an office overlooking Spa Creek, a small waterway that meanders inland from Annapolis's harbor just off the Chesapeake. He's the modeling coordinator for the Chesapeake Bay Program, a partnership between state and federal agencies tasked with protecting the nation's largest estuary. With his colleagues in Annapolis, Linker builds computer simulations — or "models" in scientific parlance — to diagnose the Chesapeake's illnesses and investigate new cures. These models seek to represent the Bay's physics, chemistry, and biology using a series of mathematical calculations and some approximations. That's no small task. The team's latest effort, the Phase 5.3 Watershed Model, represents an unprecedented attempt to simulate the inner workings of the entire Chesapeake Bay watershed — a 64,000-square-mile area that stretches from Virginia to the headwaters of the Susquehanna River in Cooperstown, New York. This model is at the heart of an equally ambitious effort to clean up the Chesapeake Bay, tributary by tributary. It will go like this: over the next 13 years, federal and state officials will employ a tool called the Chesapeake Bay Total Maximum Daily Load, or TMDL, to mandate major cuts to the excess nutrients and sediments streaming off the region's farms, cities, and skies. Linker's model is, in turn, setting those limits. They've been dubbed the Bay's "pollution diet."

Continued Concern on Carter Road

WBNG-TV BINGHAMTON, NY Dimock, PA (WBNG Binghamton) It's been nearly four years since some Dimock Township residents sued Cabot Oil and Gas over water contamination. Although federal and state agencies now say there is nothing to worry about it's not enough to erase concerns from at least one Carter Road resident. "After they started doing the fracking all the chemicals, all the dust clouds, I mean you couldn't even have the windows open in your house. Because all the dust would just roll from here, come right over into the house," said Ray Kemble. Some might call Ray Kemble paranoid. However, the water buffalo he now needs to get water into his house is very real. Cabot Oil and Gas stopped supplying him water last November. He hasn't been able to use his well in four years. Although the Department of Environmental Conservation and Environmental Protection Agency say the water is now safe Kemble says the water that comes out is less than sanitary. "The generators are running up there constantly, the pipes, claming. Everybody's screaming and hooting and hollering. I mean, this goes on 24/7," said Kemble. Kemble says many of his neighbors have left the area; Either bought out by Cabot, or simply left. A gas company offered to buy Kemble's house. But he says the price they were asking was far too low. "This is a really nice piece of property here. And now I couldn't give it away. To be a home you have to have water, sewer, and power. Well I have sewer and power but I don't have the water. Because if we don't truck it in, we don't have water," said Kemble. As New York mulls its own decision on the process Kemble has a little advice: "The only thing I tell you people up in New York is don't let them in. Because you're not going to like what's going to happen," said Kemble.

Maryland farmers on edge because of expired bill

MARYLAND GAZETTE Almost 500 dairy operations affected by congressional inaction. Maryland farmers and conservationists are hoping they won't be left to fend for themselves while they wait for Congress to return and plow their differences into passing a federal farm bill. Dairy farmers are particularly vulnerable to the loss of price supports that expired Sunday with the 2008 farm bill. And riding out volatile milk prices has not gotten any easier, as those prices fail to keep up with the cost of corn that is fed to cows, said Chuck Fry, vice president of the Maryland Farm Bureau. His 200-cow, 1,500-acre family-owned dairy in Point of Rocks stands to lose \$4,000 to \$5,000 that he otherwise would have expected next month, if a bill with price supports is not approved, Fry said. "If farmers would farm like politicians politic, the country would come to a standstill," said Fry, a fifth-generation dairy farmer. The U.S. Senate approved a new farm bill in June that would have preserved conservation assistance and revised agriculture support programs to improve efficiency and save money. But in the contentious House of Representatives, a bill approved in committee failed to move to a floor vote before the 2008 bill expired Sunday. According to Maryland Department of Agriculture, 497 dairy farms in the state depend on the federal safety net to withstand the market's volatility. With the farm bill expired, MDA's marketing and agribusiness development programs expect they will not receive more than \$733,000. That estimate includes \$393,000 for grants MDA has

used to support the growth of local produce farmers and to address food-safety issues in fruit and vegetable production, said Mark S. Powell, MDA's marketing and agribusiness development chief. It also includes more than \$211,000 to help low-income seniors buy produce at farmers markets. Maryland's U.S. Sens. Benjamin L. Cardin (D) and Barbara A. Mikulski (D) have written to Secretary of Agriculture Tom Vilsack and National Resources Conservation Service Chief Dave White urging them to support farmers in the Chesapeake watershed while they wait. Farmers have relied on matching funds from the Chesapeake Bay Watershed Initiative to help them pay for measures to reduce runoff into the Bay, under mandates from the state and the U.S. Environmental Protection Agency to achieve lower "total maximum daily loads." To reduce runoff, farmers are using cover crops, buffer strips and manure storage enclosures. "There are people out there waiting for payments on \$200,000 manure storage that are going to be told 'sorry'" unless a new farm bill is approved, Fry said.

A closer look at Obama's \$90 billion for clean energy

WASHINGTON POST At last night's presidential debate, Mitt Romney criticized the Obama administration for putting "\$90 billion into green jobs," saying the money could have been spent instead on things like teachers. Romney also claimed that half the companies funded by these energy programs have "gone out of business" — an untrue statement that was quickly rebutted by fact-checkers. (The real figure so far is less than 1 percent.) But it's worth stepping back from Romney's specific remarks and looking at President Obama's clean-energy track record more broadly. What sorts of green jobs programs *has* the Obama administration spent \$90 billion on? Where does it all go? How much of the funds have been wasted? And what are we actually getting in return for all this cash?

Lincoln Memorial reflecting pool is drained to remove algae

WASHINGTON POST (Oct. 3) The National Park Service began draining the Lincoln Memorial reflecting pool Wednesday afternoon, the latest attempt to remove algae that had spread across the landmark and overshadowed the \$34 million renovation of the site. Carol Johnson, a spokeswoman with the National Park Service, said officials had made attempts in the past week to remove the algae, which began showing up in the pool about a week after its reopening. Johnson had said earlier that the Park Service expected a "break-in period" for the pool, but no one had anticipated the amount of algae that appeared. Last week, officials began to filter out some of the algae. Most of what remained was dead, Johnson said, but the process of letting the algae disintegrate naturally could have taken months. So officials decided to increase the ozone level of the pool. And after meeting with aquatic biologists and water resource management experts, they decided it would be better to drain, refill the pool and then recalibrate its ozone level. The amount of ozone, which neutralizes the nutrient food for the algae, will be doubled. That should keep the algae from reappearing, Johnson said. Previously, draining the reflecting pool has taken up to three weeks, but Johnson said Park Service officials think it can complete the work in a shorter time. The cost of draining the pool and removing the algae is estimated at \$100,000 and will require 65 contractors along with Park Service staff members working full time to complete it, Johnson said. Access to the reflecting pool will be limited. "This is a new state-of-the-art system, so there was going to be some trial and error involved," Johnson said. "But we're confident the higher ozone levels will work." Renovating the pool, which had major structural and maintenance problems, took two years.

PENNSYLVANIA

PITTSBURGH POST-GAZETTE

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to Integrated Water Technologies Inc., and asks that it be revoked. PennFuture claimed in its 11-page filing Monday that the required public notice for the permit described it narrowly as allowing the Little Falls, N.J.-firm to treat and process fracking wastewater from Marcellus Shale wells at a facility in North Fayette. But the DEP, after meeting and corresponding with Integrated Water, issued a different "general permit" that says nothing about wastewater treatment. Instead, the issued permit changes the definition of two chemical compounds produced by the company's treatment process from waste to "beneficial use" and authorizes the spreading and use of the chemical salts for road and sidewalk de-icer, roadway dust suppression and soil stabilization. No public comment or input on those uses was sought by the state agency. The drilling industry uses millions of gallons of water mixed with chemicals and sand to "frack," or crack, the Marcellus shale and release the natural gas it contains. Some of that water flows back to the surface with the gas and is either reused or treated to remove a variety of heavy metals and salts it has washed out of the shale. The treatment byproducts -- crystallized sodium chloride and liquid calcium chloride -- could have "potentially widespread impacts on public health and the environment," according to the appeal, because the chemical salts are allowed by the permit to contain limited amounts of arsenic, lead, mercury, ammonia, volatile organic compounds and diesel hydrocarbons. Because of what is described as "DEP's misleading public notice," PennFuture contends that the permit application generated no public comment. "If you ask someone in Allegheny County or Bucks County or anywhere if someone can spread chemical salts created by treatment of Marcellus Shale fracking water, most would say 'No.' " said Kurt Weist, a senior attorney for PennFuture. "It was a misleading public notice and subsequently a one-sided conversation. There was no public input and the process is set up to allow public comment on the formulation of a permit." In addition to the procedural issue, the appeal said the reworking of the permit from wastewater processing to authorizing use of the chemical salts in publicly traveled places, like roads, sidewalks and fields, "fundamentally changed the nature and scope of the requested permit and its potential to affect public health and the environment."

Report: Dams and locks deteriorating faster than they can be replaced Locks, dams and other parts of the nation's waterways infrastructure are wearing out faster than they can be repaired or replaced, requiring the federal government to decide how to increase funding for vital projects and to close or sell those that cannot be maintained, according to a report released today by the National Research Council. Council members offered a number of options for addressing what they said have been 20 years of inadequate funding for locks, dams, harbors and levees used to reduce flood risks. Possible new sources of revenue include partnerships with the private sector and state and local government and increasing fees paid by those who use the nation's rivers and harbors, the report stated. "If we don't do something new, our waterways infrastructure is going to be modified not by plan but by continued deterioration," said Carnegie Mellon University engineering professor David Dzombak, chairman of the NRC committee that wrote the report. The study was commissioned by the U.S. Army Corps of Engineers, which is responsible for maintaining the nation's waterways infrastructure. The NRC is a nonprofit organization that provides advice to federal policy makers.

Stink bugs return to Pittsburgh area The stink bugs are back, and that means Bill Gallegor is busy. "You almost went to voice mail," said Mr. Gallegor, vice president of Allegheny Pest Control in Jefferson Hills, when reached by phone this week. He had just finished spraying the outside of one house with pesticide and was on his way to treat another. A flurry of calls for help stomping out stink bugs started coming into his office two weeks ago. "They don't pose any threat, but still people don't want them," he said. "They are ugly." By now, the stink bug needs no introduction. The brown marmorated stink bug, a foul-smelling, shield-shaped insect native to Asia, was first observed in 1998 in Allentown, Pa., according to a fact sheet created by Penn State's College of Agricultural Sciences. They appeared in smaller numbers throughout the Mid-Atlantic for years, then attracted a large amount of attention in 2010, when a major stink bug population caused widespread crop damage, said Tracy Leskey, a research entomologist at the U.S. Department of Agriculture's Agricultural Research Service. She is also co-leader of a stink bug working group based in West Virginia that is collecting data on the bug. According to information posted on the group's website, www.stopbmsb.org, the stink bug has now been detected in 38 states. It has caused severe agricultural and nuisance problems in six, including Pennsylvania, West Virginia and Maryland. The fall of 2010 was also the first season that the stink bugs "really infested the area," said Mr. Gallegor, who had only received occasional calls in earlier years. "It was just nonstop, daily," he said. "That's all we did."

Letter - End misinformation about Marcellus drilling Categorically false claims about the safe, tightly regulated development of job-creating American natural gas appeared in a recent story ("Let's Talk About Art: Photography and the Marcellus Shale Drilling Debate," Oct. 2). The suggestion that responsible natural gas development caused tap water to catch fire and that "the water was full of chemicals from a nearby fracking facility" could not be further from the truth. The Post-Gazette's source? "According to videographers." Are these unnamed videographers hydrologists, professional engineers or environmental experts? Unlikely. This baseless claim is perhaps related to Colorado, where a gentleman featured in a widely discredited film ignites his tap water. According to Colorado regulators -- not nameless videographers -- it was due to naturally occurring methane and was "not related to oil and gas activity." Perhaps most disturbing -- aside from the fact that the Post-Gazette stands by this provably false claim -- is that this "educational" story appears in the paper's "My Generation" section targeting "kids." We're all entitled to our own opinions, but not to our own facts. We hope the Post-Gazette, moving forward, will ensure that its coverage is grounded in facts. Its readers, especially our next generation, deserve as much. -- **STEVE FORDE**, Vice President, Marcellus Shale Coalition, North Fayette

PITTSBURGH TRIBUNE REVIEW

Rachel Carson inspires S. Allegheny 6th-graders A teacher at South Allegheny Elementary School hopes her 129 sixth-grade science students get encouragement from a book written 50 years ago. "She was a real strong environmental activist," Jenna Whitney said about Rachel Carson, a Springdale native who wrote "Silent Spring." On Sept. 27, 1962, Carson's indictment of "man's assaults upon the environment (with) lethal materials," was released by Houghton Mifflin. "Only (now) has one species, man, acquired significant power to alter the nature of his world," Carson wrote. "What she tried to teach the world (is) how (pesticides) could be used in a more intelligent way," said David Mintz, senior education specialist at the Pittsburgh Zoo & PPG Aquarium. "It took Rachel Carson years to convince people that this was happening," education specialist Beth Mulvihill said.

Derry Area to upgrade schools, save energy Derry Area School Board on Thursday entered into an energy service contract with Schneider Electric that will enable the district to recoup 40 percent of the nearly \$2.1 million it will cost for the company to upgrade outdated boilers, lighting and cafeteria equipment at the high school and middle school complex. Under the terms of the performance contract, the Pittsburgh-based company is guaranteeing that the district will realize savings of at least \$843,000 through increased energy efficiency and reduced utility costs over the 15 years following installation of the new equipment.

22 Allegheny County towns participate in initiative to even out solar-system costs After living in Aspinwall for four years, Reed McManigle and Susan Orr decided to add a solar-panel system to the 97-year-old home in August. "(We did it) for the environmental benefits, for one thing; also for the financial benefits. I had some savings and I needed a new roof. I figured while I'm doing a new roof, let's look into solar," said McManigle, 54, whose cost will total \$20,000 after state rebates and federal tax credits. The electrical inspection, permit, and plan review to install the system cost \$430, paid to a third-party company. By contrast, in Economy, the permitting process costs \$65 and is done in-house, said Joe Morinville, president of Energy Independent Solutions, the Robinson-based company that installed their system. In some towns, fees exceed \$1,000, or some don't require permits, he said. The wide range of costs and rules among municipalities for installation of solar systems prompted 22 towns in Allegheny County and two in Beaver County to participate in an initiative to streamline the process.

KDKA TV PITTSBURGH

Natural Gas Companies Want To Raise Fees, Despite Drop In Gas Prices PITTSBURGH (KDKA) – With Marcellus Shale drilling rigs dotting our region, the price of natural gas has dropped to a ten-year low. So many want to know why Columbia Gas is seeking a more than 23 percent rate hike. They have drilled so much natural gas in our region that companies have actually cut back drilling. There is an abundance of natural gas. "I'd like to see rates come down," Columbia Gas customer Kate McGrady said. "If natural gas is more plentiful, then we should pay less. It just seems to me that, that's the way it works." Even so, Columbia Gas — which has more than 400,000 customers in Pennsylvania, mostly in our area — is seeking a huge rate hike of 23.4 percent. An average customer's bill will rise

from \$67 to \$83 per month. "I feel like we're paying a lot already," said Michelle Urresta, who's also a Columbia Gas customer. "No, I don't agree with it at all." "It's unconscionable in these times," another Columbia Gas customer, Rose Marie Mazza, said. So why such a big increase? Columbia gas says it needs to raise rates to collect some of the hundreds of millions of dollars they've invested over the past five years on projects like one that's in operation in Mount Lebanon. They're repairing and replacing aging underground gas lines. The gas company says it's replaced \$400 million worth of pipeline the past five years. And they'll spend more than a \$100 million on new pipeline this year. "I do think we need the infrastructure taken care of," Mazza said. "It's vital to the area." But when asked if that justifies the increase in cost, Mazza said, "I just feel like it's too much, like we pay too much for it." And Columbia is not alone. Equitable is seeking a 71-cent-per-month surcharge to purchase and upgrade two pipeline systems. Peoples Natural Gas already got a 13 percent rate increase to pay for its pipeline repairs. The hikes follow a new state law that allows utility companies to recover infrastructure costs through rate hikes.

HARRISBURG PATRIOT NEWS

State Parks Director John Norbeck stepping down; advocates fear drillers at the gate

The Patriot-News has confirmed that the head of Pennsylvania's state parks, John Norbeck, will step down at the end of this week. Under Norbeck's leadership, the state parks increased visitation and won a gold medal national award for being the best-managed park system in the United States. Before coming to Pennsylvania in 2006, Norbeck had spent nearly 30 years in the Maryland state parks system. Environmentalists and advocates for the state parks fear Norbeck's abrupt departure could be a sign that the Corbett administration is preparing to open the park gates to drilling rigs to tap natural gas under the Commonwealth's popular park system; Norbeck is known to be an opponent of drilling in the state parks. Chris Novak, spokeswoman for the Department of Conservation and Natural Resources, confirmed Thursday morning that Norbeck had submitted his resignation on Monday, effective Friday, and sent an email to staff on Wednesday expressing appreciation for their work. Norbeck's letter to employees said, "During my entire career my guiding principles have always been to take care of staff and to provide top quality public service... I feel very comforted in knowing that we did just that during some pretty dark times." Novak declined to comment on the reasons for the resignation - and whether or not it was voluntary - citing personnel issues. Sources with knowledge of the situation said Norbeck was forced out last week by DCNR Deputy Secretary Ellen Ferretti. When Ferretti, a former regional president of the Pennsylvania Environmental Council, was appointed last year, the administration said her duties would include working "to develop policy on a variety of issues, including Marcellus Shale oil and gas development and drilling."

TOWANDA DAILY REVIEW

DEP accepting applications for 2013 Environmental Education Grants The Department of Environmental Protection invites schools, colleges and universities, county conservation districts, non-profit organizations, municipalities and businesses to apply for its annual Environmental Education Grant to develop environmental education programs and projects. "These grants represent an annual effort to strengthen environmental education in Pennsylvania," DEP Secretary Mike Krancer said. "We are pleased to support projects that increase students' knowledge of environmental issues." The grants provide funding to develop programs and projects that support environmental education about issues including:

- Watersheds: abandoned mine drainage, non-point source pollution and water conservation;
- Chesapeake Bay: reducing non-point source pollution, such as nutrient and sediment loads, and meaningful educational watershed experiences for students;
- Air quality: ground level ozone, transportation and electric generation issues;

WILKES-BARRE TIMES LEADER

UGI appeals ruling on compressor site UGI Energy Services Inc. appealed a county zoning board ruling blocking construction of a natural gas compressor station in West Wyoming late Wednesday afternoon. On Sept. 4 the three-member Luzerne County Zoning Hearing Board denied the company's request for a special exception for the compressor station and a variance for an associated 100-foot communications tower. That decision will now be revisited in Luzerne County Court. The company is seeking to build the compressor station in an A1 agricultural

zone off Fire Cut Road as part of a 27.5-mile natural gas pipeline that will intersect the Transco interstate pipeline in Luzerne County. It needs a special exception because compressor stations are not a permitted use in A1 districts under the county zoning ordinance. The appeal, filed on UGI's behalf by attorneys Matthew E. Turowski and Joseph L. Persico of the Rosenn, Jenkins and Greenwald law firm, argues the board's decision goes against a precedent set in May 2010, when the board approved a compressor station and associated communications tower in an A1 agricultural district in Franklin Township, and that the board has not explained why it denied UGI's application. The station to which the appeal refers was proposed by natural gas driller Encana and was approved with a request to drill for natural gas in the county. It was never built, as Encana failed to find economically viable quantities of gas in the wells it drilled in Lake and Franklin townships, and left the area.

ERIE TIMES NEWS

Helicopter to spray invasive plants at Presque Isle Most of Presque Isle State Park will be closed Wednesday while a helicopter sprays herbicide to kill invasive plants. Peninsula visitors won't be allowed east of the Stull Interpretive Center while work is done to eliminate invasive narrow-leaf cattail and phragmite plants. Assistant Park Manager Holly Best said the chemicals being applied with the helicopter inhibit the growth of plant cells. "It does not impact people," Best said. The chemicals aren't harmful to the park's animals and birds and have been labeled for aquatic use, meaning they pose little to no risk to aquatic species, officials said. Treatment areas were permitted for application of herbicide by the Pennsylvania Fish and Boat Commission and by the state Department of Environmental Protection, officials said. The herbicide will be applied to 170 acres of the 3,200-acre peninsula, but most of the park will be closed until the work is done. Best said that's because the invasive plants are located in patches throughout the park, particularly in areas like the lagoons and Leo's Landing near the Feather observation deck. The aerial spraying is planned to begin Wednesday at daylight, but will depend on the weather, Best said. Wind and rain could halt the effort. If it can't be completed by dusk, spraying will continue Thursday, with part of the park closed that day as well, officials said. Non-native narrow-leaf cattails and phragmites damage the peninsula's native plants and its habitat and ecosystem health, officials said. Park staff and interns worked to push back the invaders on more than 450 acres during the summer by pulling, cutting and digging plants and treating them with herbicide, officials said. The helicopter is being used to reach large infested areas that can't be controlled by people on the ground, officials said.

DOYLESTOWN INTELLIGENCER

Doylestown Twp. supervisors consider sewers The Doylestown Township public water and sewer advisory committee has recommended that the township install a public sewer system to serve the 250 homes in the Pebble Ridge neighborhood. So have staff from the Bucks County Health Department. Doylestown Township staff — the township manager, assistant manager and director of operations — added their names to the list of people recommending sewers on Wednesday. And to many residents who attended a special township meeting on Wednesday, it sounded like the supervisors plan to follow those recommendations. The supervisors did not vote on the issue Tuesday; they don't expect to vote on it for several months. But Supervisor Chairwoman Barbara Lyons told one resident, "You should plan on sewers." Assistant Township Manager Sandra Zadell said studies have shown high levels of human fecal bacteria in the stormwater basins and creeks in the Pebble Ridge community several times over the past 14 years. She said that can come from only one place — failing septic systems. Engineers determined through visual surveys in 2008 that 15 septic systems were malfunctioning and 35 others could be malfunctioning. "We have to put our big girl pants on and do what's best for the community because that's our job," Lyons told a resident who questioned her. Supervisor Ryan Manion said the state Department of Environmental Protection could intervene and force the township to install sewers if it doesn't take action. "Our hands are a little bit tied," Manion said. But many of the residents in the room still argued against the recommendation.

WILLIAMSPORT SUN-GAZETTE

Ground broken for new treatment plant JERSEY SHORE - An official groundbreaking for a sewage treatment plant was greeted Wednesday by community leaders and others who helped make it happen as a big day for this borough and surrounding municipalities. "Today is not the end, just the next step forward," said Tiadaghton Valley Municipal Authority Chairwoman Cheryl Brungard. Brungard, surrounded by colleagues, project engineers and public officials

near the site of the plant in Antes Fort, briefly summarized how the plant came to fruition. Chesapeake Bay initiatives for upgrading the municipal sewage treatment systems, she said, pushed the need to form an authority and build a new plant to serve the borough as well as Porter and Nippenose townships. "We wanted to treat waste water like a business," she said. She conceded that initially the prospect of financing the project seemed "scary." Ultimately, 36 percent of plant funding, she noted, is being financed through grants. "It's a very exciting day for our community," said Jersey Shore Borough Councilman and authority member Wade Snyder.

WARREN TIMES-OBSERVER

Judge upholds Roadless Rule Decision affects areas within the Allegheny. A U.S. Supreme Court ruling has the blessing of a local environmental group. Friends of Allegheny Wilderness (FAW) released a statement on Monday "praising this morning's U.S. Supreme Court ruling protecting national forest roadless areas." The Associated Press reported that the Supreme Court turned away an appeal on Monday challenging a federal rule that bars the development of 50 million acres of roadless areas in national forests. According to FAW, approximately 26,000 acres in the Allegheny Front, Clarion River, Cornplanter and Tracy Ridge areas retain the roadless rule protection that originated during the Clinton Administration. The justices said Monday they will leave a federal appeals court decision in place that upheld the rule. The state of Wyoming and the Colorado Mining Association said closing so much forest land to development has had serious consequences for residents of western states and the logging, mining and drilling industries. FAW Executive Director Kirk Johnson has a different take. "These areas and other areas on the ANF are still of course vulnerable to oil and gas development due to the presence of privately held mineral rights, but without question it is far more desirable to have the roadless rule protection in place for these important natural areas than to have lost it," Johnson said.

WAYNE INDEPENDENT

Drought has regional impact Saying the weather this year has been unpredictable is an understatement. Across the nation, states have experienced everything from mild winters to record rainfalls, drought to high temperatures. Locally, the year began with a mild winter followed by record-high temperatures in March, causing many crops to bloom early.

This winter was an "anomaly," said Jessica Rennells, a climatologist for the Department of Earth and Atmospheric Science and the Northeast Regional Climate Center at Cornell University. "A La Niña winter and Arctic oscillation acted to keep cold air north and away from the area," Rennells said. "We had such little snowfall last year—that's really rare for the northeast." This was good for municipalities that didn't have to spend as much on snowplowing and road salt, but devastating for crops such as apples, especially when temperatures then dropped in April exposing blooms to frost. Into the spring and summer, higher-than-average temperatures and extremely dry conditions left lawns brown and many local farmers with smaller crop yields. "Lack of snowfall didn't help the situation, as there was no snowpack melt in the spring to keep the ground moist," Rennells said. The first seven months of the year hit record-warm temperatures, making it the warmest 12-month period the nation has experienced since record keeping began in 1895, according to the National Oceanic and Atmospheric Administration. Along with the heat, many areas of the U.S. experienced drier-than-average conditions, causing drought and wildfires in the west and mid-west. Other areas, such as the western Gulf Coast through the Ohio Valley, experienced record-setting moisture, including West Virginia, which had its tenth wettest July, according to the NOAA. Portions of the U.S. are still experiencing the most severe and extensive drought in at least the past 25 years, according to the U.S. Department of Agriculture Economic Research Services. Some are even referring to it as the "modern day Dustbowl."

The full extent of the weather has yet to be seen, with the potential to impact the cost and availability of food and even gasoline prices.

WASHINGTON OBSERVER-REPORTER

Peters Council again hears from crowd over crematories McMURRAY – An overflow crowd once again offered comments to Peters Township Council during a public hearing Monday as township officials ponder an amendment to the ordinance that stipulates conditions for crematories in areas zoned light industrial. Currently, there are no

requests to build a crematory in the township, but officials are attempting to establish guidelines for any future proposal. Council is not permitted by law to prohibit crematories, much the same as officials are not permitted to ban adult entertainment businesses or mobile homes. An initial request to build a funeral home and a crematory along Washington Road by the Audia Group was met with opposition from surrounding homeowners. The request for the crematory by Rod and Danielle Andy Belusko was denied, and the funeral home, without a crematory, opened in April. Several court cases involving the crematory remain in litigation. However, any action, such as the proposed amendment, taken after the lawsuits were filed will have no effect on the outcome of the court cases, said William Johnson, township solicitor.

POCONO RECORD

Eldred sports car resort seeks tax incentive, encounters opposition A private, sports car club developer's effort to win a tax break for projects constructed in Eldred Township is drawing opposition. A development group, that includes investor Paul Matinho, wants to use "tax increment financing," or "TIF," to divert some property tax revenues to public infrastructure improvements associated with construction of Alpine Motorsports Club, a private driving club where members can drive their BMWs, Ferraris or other sports cars at high speeds around a track. The \$35 million club would be built on a 350-acre swath of land near Upper Smith Gap Road and the Appalachian Trail. TIF is often used to subsidize redevelopment of blighted urban areas or for new community-improvement projects. It allows developers to defer payment on a portion of local property taxes with the belief that it could spawn further development, and increase surrounding property values and additional tax revenues. Alpine Club construction — including a track, garages, pro shop, communications tower and welcome center — will be built, with or without the TIF designation, Matinho said Wednesday. To qualify for a TIF zone designation, the developer must gain approval from the county, school district, and township where the project will be built.

STATE IMPACT PENNSYLVANIA

DCNR Resignations Point to Fissures, Frustration State parks director John Norbeck has announced he's leaving his position, after serving the state for the past six years. Norbeck's resignation letter does not give a reason for his departure. But environmentalists concerned about possible natural gas drilling on state park lands are worried. Jan Jarrett, the former head of the environmental group PennFuture, speculates on her blog that Norbeck was forced out. "Abruptly yesterday, Norbeck submitted his "resignation." Word has it that he was fired. Why would Secretary Allen fire an award-winning, competent senior official? Does the administration have plans for our state parks that would run counter to Norbeck's vision of what our parks should be and provide to all Pennsylvanians?" Environmentalists like Jarrett think the move may mean the Corbett Administration is planning to open up state park land to drillers. Under Norbeck's leadership, the park system won the National Gold Medal Award for Excellence in Park and Recreation Management. PennFuture's spokesperson Jeanne Clark says Norbeck's departure marks a big loss for state park users.

Coal Industry Launches New Ad Campaign Attacking President Obama Just ahead of the first presidential debate, the coal industry began airing new ads criticizing Obama. The American Coalition for Clean Coal Electricity has produced three new spots that will run on both cable and network television. ACCCE says the EPA under Obama has an "anti-coal agenda." The EPA has proposed new rules to reduce carbon emissions, as well as mercury. The House passed a package of bills last week called "Stop the War on Coal Act," aimed at rolling back these rules. The ads don't mention either candidate by name. But to the backdrop of a federal government building and the Lincoln Memorial, the voiceover says: "Heavy handed EPA regulations have taken us down a reckless path. A path limiting our most abundant and reliant domestic fuel to generate electricity, coal."

Blog: What Obama And Romney Said About Energy During Last Night's Debate Both President Obama and Governor Romney tackled energy policy during the first half of last night's presidential debate. Romney said the White House has spent \$90 billion supporting alternative energy programs. Where did that figure come from? ...

WASHINGTON, D.C.

WASHINGTON POST

Letter: More ways to save the Chesapeake Bay The Oct. 1 editorial "A market to save the bay" highlighted an important program with major potential benefits for helping to protect the Chesapeake Bay. As the Environmental Protection Agency's program for controlling acid rain demonstrated, trading programs that allow for use of the most cost-effective pollution-control techniques can help achieve important environmental goals. For example, investing \$1,000 in planting trees or switchgrass along rural streams could do 10 to 20 times as much to control excess nitrogen, phosphorous and sediment as would an equivalent investment in urban stormwater controls. This means it could also do 10 to 20 times as much to clean and protect the Chesapeake Bay and the surrounding rivers. Further, while the flexibility to purchase additional pollution-control reduction credits from farms is no panacea, it might offer the only affordable means of cutting pollution enough to protect our waterways and the living resources they support. We will also need to invest in adequate safeguards to ensure that local water quality is still protected and that these cost-effective investments are monitored and maintained. Fortunately, living shorelines or buffers composed of trees and switchgrass can be readily monitored. -- J. David Foster, Chestertown, Md. (The writer is riverkeeper for the Chester River Association. As an analyst for the Environmental Protection Agency from 1974 to 1993, he helped develop the agency's policy on emissions trading.)

A closer look at Obama's \$90 billion for clean energy At last night's presidential debate, Mitt Romney criticized the Obama administration for putting "\$90 billion into green jobs," saying the money could have been spent instead on things like teachers. Romney also claimed that half the companies funded by these energy programs have "gone out of business" — an untrue statement that was quickly rebutted by fact-checkers. (The real figure so far is less than 1 percent.) But it's worth stepping back from Romney's specific remarks and looking at President Obama's clean-energy track record more broadly. What sorts of green jobs programs *has* the Obama administration spent \$90 billion on? Where does it all go? How much of the funds have been wasted? And what are we actually getting in return for all this cash?

Lincoln Memorial reflecting pool is drained to remove algae (Oct. 3) The National Park Service began draining the Lincoln Memorial reflecting pool Wednesday afternoon, the latest attempt to remove algae that had spread across the landmark and overshadowed the \$34 million renovation of the site. Carol Johnson, a spokeswoman with the National Park Service, said officials had made attempts in the past week to remove the algae, which began showing up in the pool about a week after its reopening. Johnson had said earlier that the Park Service expected a "break-in period" for the pool, but no one had anticipated the amount of algae that appeared. Last week, officials began to filter out some of the algae. Most of what remained was dead, Johnson said, but the process of letting the algae disintegrate naturally could have taken months. So officials decided to increase the ozone level of the pool. And after meeting with aquatic biologists and water resource management experts, they decided it would be better to drain, refill the pool and then recalibrate its ozone level. The amount of ozone, which neutralizes the nutrient food for the algae, will be doubled. That should keep the algae from reappearing, Johnson said. Previously, draining the reflecting pool has taken up to three weeks, but Johnson said Park Service officials think it can complete the work in a shorter time. The cost of draining the pool and removing the algae is estimated at \$100,000 and will require 65 contractors along with Park Service staff members working full time to complete it, Johnson said. Access to the reflecting pool will be limited. "This is a new state-of-the-art system, so there was going to be some trial and error involved," Johnson said. "But we're confident the higher ozone levels will work." Renovating the pool, which had major structural and maintenance problems, took two years.

WUSA-TV WASHINGTON, DC

Reflecting Pool Drained To Clear Away Algae WASHINGTON, D.C. (WUSA) -- Crews have drained the Reflecting Pool to clean up the unsightly green algae that took over the landmark. It had just reopened at the end of August after a 2 year, 34 million dollar renovation project. The National Park Service Spokeswoman Carol Johnson says, "We are going to do it as quickly as possible. In the old pool it use to take 2-3 weeks. We are going to do it much quicker than that." They're hosing off and scrubbing away the green muck. It's not what the kids from Landon and Holton-Arms schools in Bethesda were hoping to see on their class trip 9-year-old Connor Taylor says, "Now all I see is tons of green stuff in the water." Johnson says, "Yes, it's frustrating that we had to do this so quickly. It's a

maintenance problem, we are going to get it right once the water gets back in." The landmark had just reopened at the end of August after a 2 year hiatus. Johnson says, "what people need to understand is we have a new filtering system, using Tidal Basin water instead of city water. It will save 32 million gallons of drinking water every year." The renovations included reinforcing the bottom so millions of gallons wouldn't leak out every month, it saves drinking water but they never imagined their green project would literally turn green. Johnson says, "We didn't get the calibration right, this is a new system. We're trying to figure it out. We really feel like we've got it now." To solve the green problem, the National Park Service uses a gas or ozone to kill the algae and now has doubled the dose. But the fix doesn't come in time for Tess Armstrong's field trip. "We were expecting to see how cool it was but maybe next time." Their chaperone says, "We are on plan be, counting squares." NPS says it will cost \$100 thousand dollars to drain and clean the reflecting pool. There are 65 contractors and staff on site cleaning up. They normally have to drain a couple of times a year. But the new pool will only need to be drained once a year. It takes at least 3 days to fill up the pool. NPS says the algae doubles every four hours.

WTOP-RADIO

Reflecting pool closes again in effort to remove algae WASHINGTON - The Lincoln Memorial reflecting pool is empty once again, and it will remain that way for at least another week. The historic site reopened in late August after nearly two years of construction. While the U.S. National Park Service says the \$34 million renovation has been successful and will save the city about 32 million gallons of water per year, the buildup of green algae in the pool came as a surprise. The National Park Service says it could have waited for the algae to disintegrate and go through the pool's filtering system. Instead, National Park Service spokeswoman Carol Johnson says officials decided to expedite the cleanup by draining the water in the pool Wednesday afternoon. "We're going to disinfect and clean the pool, and then we will refill it from the Tidal Basin," she says. The renovation was funded by President Barack Obama's economic stimulus package, and the National Park Service has allocated \$100,000 to help clean the pool. To prevent the algae from returning, workers have to recalibrate the system that disinfects the water flowing in from the Tidal Basin. The system is designed to neutralize nutrients that feed the algae, but it had not been properly calibrated, Johnson says. Dozens of workers, wearing rain boots and pushing snow shovels and squeegees, cleaned the pool Thursday afternoon. A date to refill the pool has not been announced. "We know that our visitors are a little disappointed that they can't get close to the pool right now," Johnson says.

MY FOX WASHINGTON, DC

Lincoln Memorial reflecting pool drained to remove algae WASHINGTON - The fight to control the algae in the refurbished Lincoln Memorial reflecting pool is escalating. The National Park Service decided rather than try to eliminate the algae from the existing water to start all over. Park service spokesman Carol Johnson says the pool was drained Thursday and will remain empty for at least a week. After numerous attempts to adjust the ozone level of the pool were unsuccessful in getting rid of the algae. Officials decided it would be better to drain the pool than continue adjusting the ozone levels. Letting the algae disintegrate naturally may have taken months. Algae and scum have been covering parts of the pool since it reopened. It had been closed for a two-year renovation and was reengineered to draw river water from the Tidal Basin instead of city drinking water. The system is supposed to filter and circulate the water to keep it cleaner than in the past. The park service says the system that fills the pool is being recalibrated to neutralize nutrients that feed algae.

WEST VIRGINIA

CHARLESTON GAZETTE

Blog: Are the coalfield political campaigns all about coal? Fresh from Wednesday night's debate, Republican presidential candidate Mitt Romney is headed back to coal country. He's scheduled to visit southwest Virginia tomorrow for an event at Carter Machinery in Abingdon. Meanwhile, there's been a lot of media coverage of the

back-and-forth between the campaigns about coal, so I thought we would just run through some of the more interesting examples. Under the headline What's the Deal With All the Coal Miner Campaign Ads, ABC News.com examined why both candidates are paying attention to and talking about coal issues.

Blog: Gov. Romney: 'And by the way, I like coal' In a debate that was supposed to be about the economy and domestic issues, both President Obama and Gov. Romney last night sure didn't talk much about energy or — heaven forbid — global warming. And it was obvious we couldn't count on moderator Jim Lehrer to bring up these issues. Perhaps we should just be glad that they didn't bring in some science denier to handle that topic. Gov. Romney did take several swipes at the president's support for "green energy", including this:

Spark for electric cars is nothing new CHARLESTON, W.Va. -- While interest in electric cars, or at least gas-electric hybrids, is growing in response to \$4-a-gallon gasoline and concerns over global warming, there's nothing particularly new about battery-powered automobiles. More than 1,000 of the 4,192 cars produced in America in 1900 were electric, as were more than one-third of all cars in use in New York, Boston and Chicago at that time. After electric starters replaced the need to crank-start gasoline-powered cars and gas filling stations became more readily available along the nation's growing network of highways, the less powerful, shorter-ranged electric cars began to fade from the nation's automotive scene. One of the last manufacturers of electric cars of the pre-World War II era was the Milburn Wagon Co., which had been one of America's largest wagon and carriage companies before embracing the automobile.

Water trail planned for the upper Cheat River CHARLESTON, W.Va. -- A water trail is being planned for the upper Cheat River, starting with a 38-mile stretch of gentle paddling water between Hendricks in Tucker County and Rowlesburg in Preston County. "The upper Cheat is a beautiful, easy section of river to make available to the world," said Peggy Pings, an outdoor recreation planner with the National Park Service's Rivers and Trails Program. A Cheat River water trail would likely qualify for inclusion in a new national system of water trails being developed with NPS assistance, Pings said. The proposed water trail is a project of the Friends of the Cheat watershed organization, which will soon begin holding public meetings and informational sessions with county commissions and other local government groups along the upper Cheat River to discuss the project. The Upper Cheat Water Trail would allow "individuals of limited paddling abilities to experience one of West Virginia's most scenic rivers," said Frank Jernejcic, district fishery biologist with the West Virginia DNR, in a news release announcing plans for the water trail. "The Cheat's smallmouth bass fishery has improved significantly during the past 30 years and can provide fishing opportunities for neophyte and experienced anglers alike."

FEMA says funds still available for damage from summers derecho CHARLESTON, W.Va. -- Representatives from a federal disaster relief agency said Thursday that hundreds of thousands of dollars are still available for people whose homes and businesses suffered heavy damage from this summer's storms. Officials with the Fede...

WEST VIRGINIA PUBLIC BROADCASTING

Division of Forestry provides foliage report West Virginia Division of Forestry officials say the upcoming three-day Columbus Day weekend is the perfect opportunity to see peak foliage in a variety of areas of the Mountain State. Foresters say leaves are changing quickly along the higher elevations. Lower elevations are coming along nicely too, so even if you don't get to the highest peaks, you should see color wherever you go this weekend. Dolly Sods Wilderness and Spruce Knob were reported to be at peak earlier this week but good color should remain through the weekend. The upper elevations of Randolph and Pocahontas counties are expected to peak this weekend, including at Cheat Mountain and Shavers Mountain. Greenbrier, Nicholas and Webster counties are at 70 percent peak. Point Mountain in Webster County is reported to be beautiful, but not quite at peak. Higher elevations of Tucker County are at 80 percent peak with a variety of reds, oranges and yellows. Foresters recommend a drive on State Route 2 along the Ohio River. Foliage in the state's western counties is coming along nicely. You can visit the state Division of Forestry's Facebook page for foliage updates.

ASSOCIATED PRESS (W. Va.)

W.Va. Board of Education OKs propane for buses CHARLESTON, W.Va. -- School administrators in West Virginia now have the option of transporting students with propane-powered school buses. The state Board of Education on Thursday voted to change its policy to allow the use of propane as a fuel for school buses. State Schools Superintendent Jorea Marple says switching to propane could save an average \$3,100 per bus in fuel costs annually. More than two-dozen other states have adopted propane as an alternative fuel source.

MARYLAND

BALTIMORE SUN

Court hears legal challenge to Chesapeake Bay 'pollution diet' HARRISBURG, PA.— In a challenge to the Obama administration's efforts to jump-start the lagging restoration of the Chesapeake Bay, lawyers for farmers and homebuilders argued in federal court here Thursday that the Environmental Protection Agency overstepped its legal authority and relied on a flawed computer model in setting a pollution "diet" for the ailing estuary. Lawyers for the American Farm Bureau Federation, the National Association of Home Builders, poultry and pork producers, and other farming groups argued that states in the Chesapeake watershed, not the federal government, should be in charge of deciding how and where to reduce pollution fouling the bay. They also complained that the far-reaching "diet" was rushed into place despite gaps and errors and without giving the public enough time to review and comment on it. "It will affect urban growth; it affects how agriculture land will be used," said Richard E. Schwartz, one of the industry groups' lawyers. The pollution diet is generating an unprecedented amount of regulation of what, he said, are "intensely local and expensive decisions" best left to communities to work out themselves. But lawyers for the EPA, environmental groups and local agencies operating sewage treatment plants defended the agency's role in directing an acceleration of bay cleanup efforts. Without strong federal oversight and threat of sanctions, they pointed out, states had repeatedly missed their pollution-reduction goals since the restoration campaign began nearly 30 years ago. Kent F. Hanson, a Justice Department lawyer for the EPA, said federal regulators worked closely with state officials in a years-long, open process to develop the pollution-reduction plan. While some states did resist and complain about the EPA's handling of it, he noted that none joined in the farmers' and builders' lawsuit. Congress directed the EPA more than a decade ago to take a hand in the bay cleanup effort, said Jon Mueller, a lawyer for the Chesapeake Bay Foundation also representing several other environmental groups. Specific pollution reductions ordered for local waters and communities were set by the states, he said.

Survey shows fewer Md. children suffered lead poisoning in 2011 Advocates say new rental properties and owner-occupied homes new safety target. Fewer children were poisoned by lead-based paint in 2011 than in any year since Maryland began tracking cases nearly two decades ago, prompting the state to expand its focus to newer rental properties and owner-occupied homes.

SALISBURY DAILY TIMES

Anglers debate OC offshore wind farm ANNAPOLIS — If a wind farm is ever built off the coast of Ocean City, it could enhance recreational fishing by creating artificial reefs, but hurt commercial fishermen who dredge in the area by taking up valuable bottom with cables and lines. A number of steps still need to be taken before the offshore farm, which could include between 50 and 100 wind turbines, becomes a reality. Still, Catherine McCall of the Maryland Department of Natural Resources said the department is taking steps now to minimize the impact on the fishing community. "The largest impact could occur to gear types that tend to make contact with the bottom, so your trolls or your dredges. The connections between each of the turbines require cables or lines and you don't want people dredging or trolling over that," McCall said. McCall said where dredging would be prohibited would be decided during the siting process. Depending on who installs the project, all fishing near the turbines could be prohibited for safety reasons. Gov. Martin O'Malley's Maryland Offshore Wind Energy Act of 2012 passed through the House of Delegates but never came to a vote in the Senate. The bill is not necessary to build a farm but would encourage construction by requiring that Maryland power suppliers get a certain amount of power from wind. Similar

legislation is expected in 2013 as proponents continue to try to jump start wind farming in Maryland. In the past, old subway cars have been sunk off the coast of Ocean City to create artificial reefs that benefit aquatic life. If built, the turbines would create a similar artificial reef. "The base of every turbine you install, or at least the ones that are anchored into seafloor, have a rock scour, so that can almost act as an artificial reef," McCall said. "And folks like to fish off of artificial reef structures because there is quite a unique fish community and invertebrate community," McCall said.

Delmarva welcomes cyclists Get ready, Delmarva, to welcome more than 7,000 bicyclists from 47 states, as well as the Virgin Islands, Canada and Israel, who are converging on the Salisbury area today for the 24th annual Sea Gull Century on Saturday.

BAY.NET

Grant Awarded to St. Mary's Rural Legacy Area The Mattapany Rural Legacy Area in St. Mary's County has received three-quarters of a million dollars to permanently protect agricultural and ecologically significant working landscapes. The Mattapany Rural Legacy Area grant is one of ten approved Wednesday by the Maryland Board of Public Works. In all The Rural Legacy Program will receive approximately \$5.6 million in Fiscal Year 2013 grants. The Mattapany Rural Legacy Area is comprised of 13,660 acres in southern St. Mary's County. The area protects rich farmland, forests, wetlands, historic sites and wildlife habitat. Conservation within the area provides water quality benefits to the Chesapeake Bay and the Saint Mary's River watershed, which has been described by the Smithsonian as the most beautiful and pristine estuary on the western side of the Chesapeake Bay. Protection of property in this area also provides open space buffer to Patuxent River Naval Air Station. "Through these conservation easements, we are able to protect our landscapes that are part of the rich history we share as Marylanders," said Governor O'Malley.

MARYLAND GAZETTE

Maryland farmers on edge because of expired bill Almost 500 dairy operations affected by congressional inaction. Maryland farmers and conservationists are hoping they won't be left to fend for themselves while they wait for Congress to return and plow their differences into passing a federal farm bill. Dairy farmers are particularly vulnerable to the loss of price supports that expired Sunday with the 2008 farm bill. And riding out volatile milk prices has not gotten any easier, as those prices fail to keep up with the cost of corn that is fed to cows, said Chuck Fry, vice president of the Maryland Farm Bureau. His 200-cow, 1,500-acre family-owned dairy in Point of Rocks stands to lose \$4,000 to \$5,000 that he otherwise would have expected next month, if a bill with price supports is not approved, Fry said. "If farmers would farm like politicians politic, the country would come to a standstill," said Fry, a fifth-generation dairy farmer. The U.S. Senate approved a new farm bill in June that would have preserved conservation assistance and revised agriculture support programs to improve efficiency and save money. But in the contentious House of Representatives, a bill approved in committee failed to move to a floor vote before the 2008 bill expired Sunday. According to Maryland Department of Agriculture, 497 dairy farms in the state depend on the federal safety net to withstand the market's volatility. With the farm bill expired, MDA's marketing and agribusiness development programs expect they will not receive more than \$733,000. That estimate includes \$393,000 for grants MDA has used to support the growth of local produce farmers and to address food-safety issues in fruit and vegetable production, said Mark S. Powell, MDA's marketing and agribusiness development chief. It also includes more than \$211,000 to help low-income seniors buy produce at farmers markets. Maryland's U.S. Sens. Benjamin L. Cardin (D) and Barbara A. Mikulski (D) have written to Secretary of Agriculture Tom Vilsack and National Resources Conservation Service Chief Dave White urging them to support farmers in the Chesapeake watershed while they wait. Farmers have relied on matching funds from the Chesapeake Bay Watershed Initiative to help them pay for measures to reduce runoff into the Bay, under mandates from the state and the U.S. Environmental Protection Agency to achieve lower "total maximum daily loads." To reduce runoff, farmers are using cover crops, buffer strips and manure storage enclosures. "There are people out there waiting for payments on \$200,000 manure storage that are going to be told 'sorry'" unless a new farm bill is approved, Fry said.

EASTON STAR DEMOCRAT

Commentary: Bay needs protector Residents of Maryland's First Congressional District, whatever their political affiliation, share at least one common concern: protection of the Chesapeake Bay. This year's congressional race provides a clear choice between placing the Bay's future at risk or continuing a long-term bipartisan commitment to its protection. The recent death of Russell Train, a prominent Republican and longtime environmentalist, reminds us that this issue transcends party. Former Republican Congressman Wayne Gilchrist in the pages of the Star Democrat recently provided an account of how a proposed addition to the Farm Bill in the House would benefit district residents, including farmers. He asks that Congressman Harris oppose H.R. 4153 in its current form as have some 43 private, public, nonprofit and religious organizations committed to protecting the environment. Republican leadership has decided that this bill will not be taken up until after the election a convenient strategy so that congressmen such as Harris can avoid being on the record for legislation that has an anti-environmental intent. Andy Harris has consistently demonstrated a willingness to sacrifice our economy and quality of life to an ideology that considers compromise a dirty process and dismisses sound science as questionable when it contradicts his supporters' ideology.

SOUTHERN MARYLAND ONLINE

Dining for a Cause: "From the Bay, For the Bay" Benefits Chesapeake Bay Oyster Recovery BALTIMORE -- Cleaning up the Chesapeake Bay is as simple as going out to eat, at least from Oct. 6 - 13. During the second annual From the Bay, For the Bay promotion, participating restaurants in Maryland, Virginia, Pennsylvania and Washington will donate \$1 for every seafood dish served to fund oyster restoration projects. The program, headed by the Maryland Department of Natural Resources and Oyster Recovery Partnership, raised more than \$25,000 in 2011, allowing the group to plant more than three million oysters in the Chesapeake Bay. This year, around 150 restaurants are joining the event. "Everybody likes to eat," said oyster shucker George Hastings. "If you can couple up informing people about the bay and what oysters do for the bay with eating, I think it's a win-win." Hastings was one of around 350 to attend the "From the Bay" launch party Wednesday night at the annual Mermaid's Kiss Oyster Fest at Baltimore's National Aquarium. Sen. Ben Cardin appeared at the event, calling the Chesapeake Bay the "largest, most important estuary in our hemisphere."

"The Chesapeake Bay is in trouble because of too much nitrogen, too much phosphorus, too many pollutants entering the bay," Cardin said. A thriving oyster population could help ease these problems. "If you have an acre of solid, live oyster reef, it will filter about 3,000 pounds of nitrogen out of the bay each year," said Bob Driscoll, chairman of the Oyster Recovery Partnership's Board of Directors. "Oysters are the natural filter of the bay." Oysters also provide habitat for other marine life, like blue crabs and striped bass. The owner of Hollywood Oyster Company Tal Petty said each of his oyster cages has created a "microenvironment" on what was once sandy bottom. "Now there are more fish, more crabs," Petty said. "That's really exciting."

CHESAPEAKE QUARTERLY

A Model Plan: How Can We Gauge the Bay's Cleanup? Billions of dollars and the fate of the Chesapeake Bay hinge on a few computer simulations. Who are the scientists behind these "models," and how are they being used to drive the biggest effort to clean up a body of water in U.S. history? **PICTURE THIS: A FORTUNE-TELLER, DRESSED IN JEWELS** and a bandana, entertains a client. Between them sits a crystal ball. And in the corner, a multimillion-dollar supercomputer. "How do you want it?" the soothsayer asks. "The crystal mumbo-jumbo or statistical probability?" That's the gist of an old cartoon by artist Sidney Harris. The joke may be tongue-in-cheek, but it gets to an ongoing debate in modern environmental science: when it comes to representing the ins-and-outs of natural ecosystems — say a river or an estuary — and predicting what they'll do, are computer models any better than a shot in the dark? Nature is, after all, almost dauntingly complex and, as any scientist will tell you, full of surprises. So the question arises, for making decisions about managing the environment, whom do you trust: the fortune-teller or the modelers? That same question has driven much of Lewis Linker's career. This modest scientist works out of an office overlooking Spa Creek, a small waterway that meanders inland from Annapolis's harbor just off the Chesapeake. He's the modeling coordinator for the Chesapeake Bay Program, a partnership between state and federal agencies tasked with protecting the nation's largest estuary. With his colleagues in Annapolis, Linker builds computer simulations — or "models" in scientific parlance — to diagnose the Chesapeake's illnesses and investigate new

cures. These models seek to represent the Bay's physics, chemistry, and biology using a series of mathematical calculations and some approximations. That's no small task. The team's latest effort, the Phase 5.3 Watershed Model, represents an unprecedented attempt to simulate the inner workings of the entire Chesapeake Bay watershed — a 64,000-square-mile area that stretches from Virginia to the headwaters of the Susquehanna River in Cooperstown, New York. This model is at the heart of an equally ambitious effort to clean up the Chesapeake Bay, tributary by tributary. It will go like this: over the next 13 years, federal and state officials will employ a tool called the Chesapeake Bay Total Maximum Daily Load, or TMDL, to mandate major cuts to the excess nutrients and sediments streaming off the region's farms, cities, and skies. Linker's model is, in turn, setting those limits. They've been dubbed the Bay's "pollution diet."

ASSOCIATED PRESS (Md.)

Chesapeake Bay Forest Buffer Restoration Down ANNAPOLIS, Md. (AP) - Higher crop prices are being blamed for a drop in forest restoration in the Chesapeake Bay watershed. The Chesapeake Bay Program says restoration of forest buffer areas along creeks and streams dropped to less than a third of the level reached at the peak of the program in 2005. The regional partnership says 815 miles were restored in 2005 compared to 240 miles last year. The bay program says the buffers keep fertilizer and manure from running off farm fields into waterways, where it can cause algae blooms that harm water quality. The bay program says higher crop prices are prompting farmers to keep more buffer areas planted with crops. Funding for other conservation practices such as cover crops has also lowered the planting of trees for forest buffer areas.

VIRGINIA

RICHMOND TIMES-DISPATCH

For farmers, the state fair means educating the public After years of traveling to state and local fairs and schools to educate the public about farm life, Rich Knebel has learned to expect some odd questions. Knebel, a former dairy farmer from Indiana who is managing the calf-birthing center and milking station this week at the State Fair of Virginia, recalls one incident at a fair in the Northeast a few years ago. "This lady came up to me and asked, 'What's wrong with them chickens?' " Knebel recalled. "I said, 'What do you mean?' She said, 'They've got two legs. The ones I buy in the store have four legs.' "She thought because she got four legs in a package, that chickens have four legs," Knebel said. "So many people just don't have a clue of where their food comes from or what it takes to put their food on the shelf. The biggest part I enjoy is answering those questions."

NEWPORT NEWS DAILY PRESS

VIMS cracks the case of blue crab parasite Marine researchers have spent 15 years trying to nail down the life cycle of a single-celled parasite fatal to blue crabs. On Thursday, they announced they cracked the case. "Describing the entire life cycle of the Hematodinium was an important breakthrough for us," said Jeff Shields at the Virginia Institute of Marine Science (VIMS) in Gloucester Point. "Having all stages in culture means we can now really start picking the life cycle apart to learn what the organism does and how it functions." Armed with this new knowledge, researchers hope to stem infections that are a growing concern to wild fisheries and aquaculture operations. The parasite is harmless to people. The parasite is highly prevalent in crabs in the high-salinity waters of the Eastern Shore, particularly in newly settled juveniles, and far less prevalent in the lower-salinity waters of the Chesapeake Bay, said Shields. Still, all of the crabs that enter the bay must first come through the high-salinity waters at its mouth. "It would be premature to say much more than that," Shields said. "But we definitely see it in newly settled juveniles, so there's a possibility for it to affect crabs in a wider area." At the Virginia Marine Resources Commission, spokesman John Bull said they've heard no complaints from crabbers about the mortality rate of the crabs they catch, and no complaints about die-offs in the shedding tanks where they're placed until they molt and become soft-shell crabs. "Which leaves us to believe this parasite isn't a harvest issue," Bull said. "This is a stock

issue." Shields agreed, but said the parasite may still be causing losses of \$500,000 a year to Virginia's blue crab fishery. In Virginia's seaside bays, he said, they found prevalence levels of 50 percent to 70 percent among juvenile blue crabs. "Imagine a harvest with 50 percent more crabs, and the effect of the parasite becomes quite clear," said Shields. Blue crabs have long been an iconic feature of the Chesapeake Bay, and efforts to restore them in the estuary after decades of overfishing and degraded habitat have largely been successful. In April, VIMS announced that the total population of blue crabs in the bay had reached 764 million — an increase of 66 percent since 1993 and a 20-year high. VIMS conducted its annual bayside survey with the Maryland Department of Natural Resources. According to Bull, the juvenile crab stock in particular "has done fabulously" recently. "The juvenile stock at the beginning of this year was the highest level recorded in 40 years," said Bull. "So if we're seeing an impact, we're not seeing an impact on the juvenile stock. It is booming. Whether or not it would be booming more without this parasite, that's impossible for us to say." The Hematodinium was first reported in Virginia's blue crabs in the early '90s, according to VIMS. During seasonal outbreaks, crab mortality can reach 50 percent in crab pots and 75 percent in shedding facilities for soft-shell crabs on the Eastern Shore.

ASSOCIATED PRESS (Va.)

Virginians can save on energy-efficient appliances, products during 4-day sales-tax holiday RICHMOND, Va. — Virginia is holding its sixth annual sales-tax holiday on energy-efficient products. From Friday through Monday, residential consumers can save money by buying sales-tax exempt heat pumps, dishwashers, washing machines, insulation, toilets and other products. They must be \$2,500 or less and certified as being energy efficient with the Energy Star and WaterSense designations. A complete list of tax-exempt items can be found at www.tax.virginia.gov. This is Virginia's third tax-free holiday of the year. Hurricane-preparedness items get a tax-free weekend in May and back-to-school items get a similar weekend in August.

MISCELLANEOUS

BNA DAILY ENVIRONMENT REPORT

Judge Questions Industry on Challenge to EPA Authority on Bay Cleanup A federal judge in Pennsylvania questions arguments by farm industry attorneys that EPA is usurping state authority in its efforts to control nutrient pollution in the Chesapeake Bay. Judge Sylvia Rambo of the U.S. District Court for the Middle District of Pennsylvania, hearing oral arguments on motions for summary judgment in the case, also presses a Justice Department attorney on whether EPA's "backstop" provisions—to be invoked if states fail to control the pollutants—intrude on state's rights

EPA Seeks Input on Challenges for States in Enforcing Feedlot Permits EPA says it wants input from state officials on challenges they face in writing, implementing, and enforcing discharge permits for concentrated animal feeding operations. EPA's goal is to improve the CAFO permitting and enforcement program "to make it as effective as possible," George Utting, acting rural branch chief of EPA's Water Permits Division, tells the 2012 CAFO Roundtable, sponsored by the Association of Clean Water Administrators and the Maryland Department of the Environment

EPA Receives Data on Half of Chemicals for 2013-2014 Assessments

EPA says chemical manufacturers have provided data on half of the 18 chemicals for which the agency sought information for risk assessments in 2013 and 2014. Submissions have been received and posted to the docket on 1,1,2-trichloroethane, 1,2-dichloroethane, 4-tert-octylphenol, four ethanone fragrance chemicals, 2,6-di-tert-butyl-4-sec-butylphenol, and 1-bromopropane, according to the agency.

Significant New Use Rules Issued to Address 78 Chemicals EPA issues direct final significant new use rules for 78 chemicals, including seven the agency has managed through consent orders. The rules require any company that intends to make or use the chemicals in a way EPA has designated to be new to notify the agency 90 days before

doing so. EPA would then evaluate the proposed use to determine whether it poses environmental or health risks that warrant regulation or other controls

Hot, Dry Summer Likely Responsible for Rise in Bad Ozone Days The hot, dry summer likely is responsible for an uptick in the number of bad ozone days in many parts of the country, analysts say. EPA data show more days in which ozone concentrations reached 75 parts per billion in 2012 than in 2011. The data also show significant improvement in air quality in recent years, compared with the early 2000s

ASSOCIATED PRESS

Daryl Hannah arrested in Texas protesting pipeline HOUSTON - Actress Daryl Hannah of "Splash" fame was arrested in northeast Texas on Thursday, along with a 78-year-old landowner as the pair protested an oil pipeline designed to bring crude from Canada to the Gulf Coast. "They've arrested Daryl Hannah and a rural Texas great-grandmother," said Paul Bassis, Hannah's manager. Hannah and landowner Eleanor Fairchild were standing in front of heavy equipment in an attempt to halt construction of the Keystone XL pipeline on Fairchild's farm in Winnsboro, a town about 100 miles east of Dallas. They were arrested for criminal trespassing and taken to the Wood County Jail, Bassis said. Hannah also faces a charge of resisting arrest, according to jail records. Hannah has long opposed TransCanada's construction of the \$7 billion pipeline, which is designed to transport heavy tar-sands crude oil from Alberta, Canada, to Texas' Gulf Coast refineries. "It is unfortunate Ms. Hannah and other out-of-state activists have chosen to break the law by illegally trespassing on private property," David Dodson, a spokesman for TransCanada, said in an email. He also said protesters were "putting their own safety and the safety of others at risk." Bassis said he spoke to the actress Thursday evening and that there was "a strong indication" that both women would be kept overnight at the local jail. "The streets of Winnsboro will be much safer tonight

GREENWIRE

Romney, Obama spar over energy policy during first debate DENVER -- There are no raised voices or wild gesticulating, but Denver resident Russ Thompson is clearly frustrated by the young volunteer staffing an environmental group's table here at the University of Denver's DebateFest. It's early afternoon, and Thompson is among the 5,000 attendees expected at this community event -- featuring bands, an "issues alley" of campus organizations, state political parties and nonprofit groups -- before it concludes with an outdoor screening of the first debate between President Obama and GOP presidential nominee Mitt Romney, which takes place a few blocks away at the university's Magness Arena. But for now, Thompson, a self-described investor in energy projects who favors both solar panels and hydraulic fracturing, is expressing disdain that some environmentalists are opposed to any forms of fossil fuels, including natural gas. And he's concerned that energy policy won't be given its due in the looming presidential debate -- or in the remaining two -- because neither candidate wants to draw the ire of "fringe" groups, whether it be environmentalists criticizing Romney or industry groups targeting Obama. "The problem is neither of them are going to talk up energy," said Thompson, who declined to reveal whom he planned to support in November. "It doesn't serve your candidacy to say something."

Federal agencies now allowed to submit NEPA reviews online Federal agencies can now submit environmental impact statements electronically, thanks to a new online system aimed at streamlining the National Environmental Policy Act process. U.S. EPA launched e-NEPA today, eliminating the need for agencies to deliver hard copies of their environmental impact statements to the agency's headquarters. As the most extensive environmental review under NEPA, a typical EIS can be hundreds or even thousands of pages long; electronic submission will save time and money, according to EPA. Cynthia Giles, EPA's assistant administrator for enforcement and compliance assurance, said the new online system is "an important step forward" in the administration's effort to streamline the federal environmental review process. "Through electronic filing, we are making it easier for federal agencies to submit environmental impact statements, allowing them to save time and reduce costs, while making the process more transparent for the public," she said in a statement. Only federal agencies will be able to use the system.

NATIONAL RESOURCES DEFENSE COUNCIL

Blog: Dimock in the News Again: Unanswered Questions Keep Bubbling Up. Questions keep coming to the surface

as details of EPA's investigation of Dimock water wells are continuing to be reviewed. A few weeks ago, I blogged about the the Agency for Toxic Substances and Disease Registry's (a federal health agency) still active investigation into the potential health risks from using Dimock water, despite EPA's assessment that Dimock water was "safe." And this past week, recent articles in the Scranton Times Tribune (see [here](#) and [here](#)) and [Bloomberg News](#), have once again shown a spotlight on some of the lingering questions about Dimock water. In short, here are the ongoing concerns:

WBNG-TV BINGHAMTON, NY

Continued Concern on Carter Road Dimock, PA (WBNG Binghamton) It's been nearly four years since some Dimock Township residents sued Cabot Oil and Gas over water contamination. Although federal and state agencies now say there is nothing to worry about it's not enough to erase concerns from at least one Carter Road resident. "After they started doing the fracking all the chemicals, all the dust clouds, I mean you couldn't even have the windows open in your house. Because all the dust would just roll from here, come right over into the house," said Ray Kemble. Some might call Ray Kemble paranoid. However, the water buffalo he now needs to get water into his house is very real. Cabot Oil and Gas stopped supplying him water last November. He hasn't been able to use his well in four years. Although the Department of Environmental Conservation and Environmental Protection Agency say the water is now safe Kemble says the water that comes out is less than sanitary. "The generators are running up there constantly, the pipes, claming. Everybody's screaming and hooting and hollering. I mean, this goes on 24/7," said Kemble. Kemble says many of his neighbors have left the area; Either bought out by Cabot, or simply left. A gas company offered to buy Kemble's house. But he says the price they were asking was far too low. "This is a really nice piece of property here. And now I couldn't give it away. To be a home you have to have water, sewer, and power. Well I have sewer and power but I don't have the water. Because if we don't truck it in, we don't have water," said Kemble. As New York mulls its own decision on the process Kemble has a little advice: "The only thing I tell you people up in New York is don't let them in. Because you're not going to like what's going to happen," said Kemble.

NEW YORK TIMES

Lincoln Memorial Reflecting Pool Is Drained The National Park Service has again drained the reflecting pool in front of the Lincoln Memorial to clean an algae buildup that formed after a \$34 million overhaul. The park service said the pool will remain empty for at least a week. Algae and scum have been covering parts of the pool since it reopened. It had been closed for a two-year renovation and was re-engineered to draw river water from the Tidal Basin instead of city drinking water. The system is supposed to filter and circulate the water to keep it cleaner than in the past. The park service says the system that fills the pool is being recalibrated to neutralize nutrients that feed algae.

LA TIMES

Study reveals greenhouse gas emissions eons ago Centuries before the Industrial Revolution or the recognition of global warming, the ancient Roman and Chinese empires were already producing powerful greenhouse gases through their daily toil, according to a new study. The burning of plant matter to cook food, clear cropland and process metals released millions of tons of methane gas into the atmosphere each year during several periods of pre-industrial history, according to the study, published Thursday in the journal Nature. Although the quantity of methane produced back then pales in comparison with the emissions released today -- the total amount is roughly 70 times greater now -- the findings suggest that man's footprint on the climate is larger than previously realized. Until now, it was assumed by scientists that human activity began increasing greenhouse gas levels only after the year 1750. "The quantities are much smaller, because there were fewer people on Earth," said study leader Celia Sapart, an atmospheric chemist at Utrecht University in the Netherlands. "But the amount of methane emitted per person was significant." Ms. Sapart's conclusions were based on an analysis of ice core samples from Greenland. The layered ice columns, which date back 2,000 years, contain tiny air bubbles from different periods of history, and provide scientists with a view into the atmosphere's changing chemistry. The first period of methane production captured in the ice cores -- roughly from the years A.D. 1 to 300 -- encompassed the tail ends of the Roman Empire

and the Han Dynasty, when charcoal was the preferred form of fuel. The second period of elevated methane emissions occurred during what's known as the Medieval Climate Anomaly, from roughly 800 to 1200, and a third was found during the Little Ice Age between 1300 and 1600. Methane is one of a few gases that trap heat in the atmosphere and contribute to global warming. It forms naturally when plant and animal matter decomposes in airless environments, and it's also released when vegetation burns. However, when methane is produced by burning, it contains heavier carbon isotopes than methane generated through decomposition.